NAD SERVICE MANUAL

6220

STEREO CASSETTE DECK

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SPECIFICATION

Tape speed 4.75cm/sec
Wow and flutter (JIS Weighted)
  Playback 0.13%
Pressure roller force . . . . . 300 ~ 500g
Play torque . . . . . 35 ~ 75g/cm
F.F. torque . . . . . 60 ~ 170g/cm
Rew torque . . . . . 60 ~ 170g/cm
F.F. time (C-60) . . . . . 110 sec
Rew time (C-60) . . . . . 110 sec
Input sens. and impedance
  Line 41mV/8.2kΩ
Frequency response
  (Dolby level – 25dB Dolby NR off)
  Normal tape . . . . . 35 ~ 16,000Hz $\pm\frac{2}{4}$dB
  CrO_2 tape . . . . . 35 ~ 17,000Hz $\pm\frac{2}{4}$dB
Signal to noise ratio
  CCIR/ARM weighted 400Hz to Dolby level
  Dolby C Normal 69dB
  CrO_2 . . . . . 71dB
  Dolby B Normal 60dB
  CrO_2 . . . . . 61dB
  Dolby off Normal 50dB
  CrO_2 . . . . . 52dB
Erase effect
  with band pass filter 1kHz
  Input 0VU + 10dB 65dB
Separation
  with band pass filter 1kHz
  Input 1kHz Dolby level 45dB
Cross talk
  with band pass filter 1kHz
  Input 1kHz 0VU + 10dB 65dB
Output level at Dolby level
  (MTT-150 play)
  RCA 520mV
Distortion
  (Normal Tape 1kHz at Dolby Level) 0.8%

GENERAL

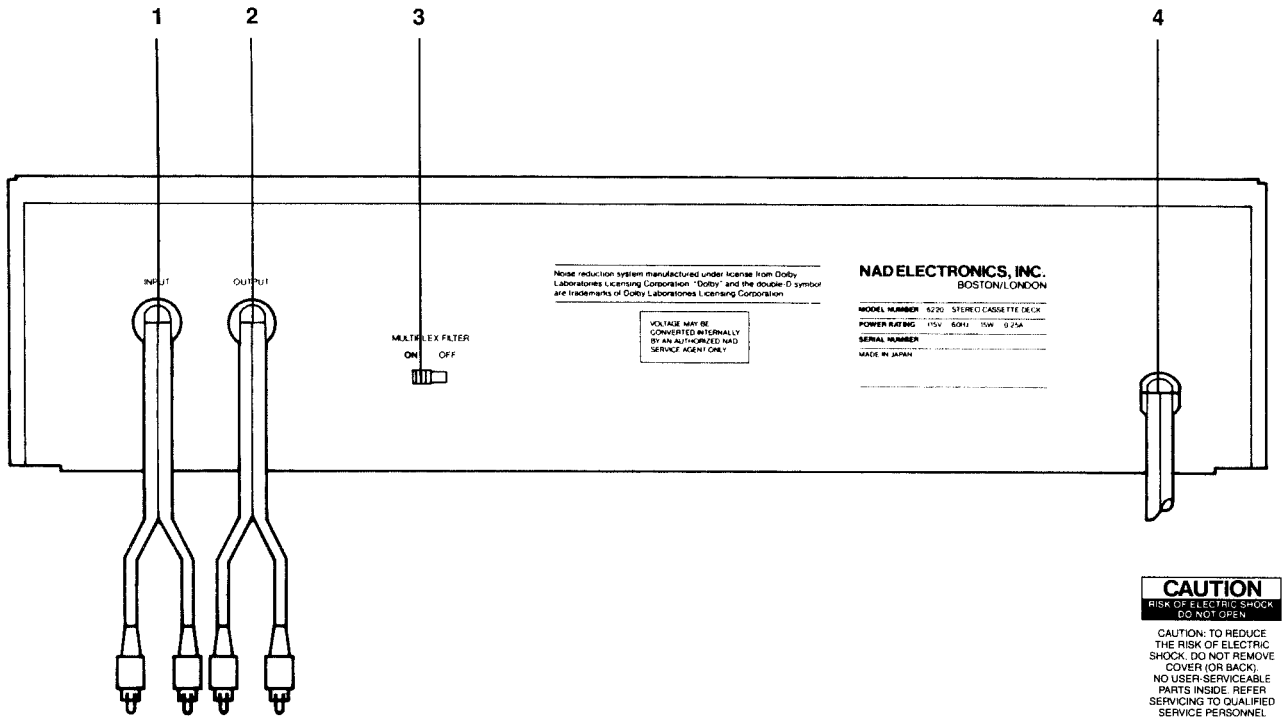
Maximum power consumption 15W
AC power supply 230V/50Hz
  115V/50Hz
  120V/60Hz
Weight and Dimensions (Approx.)
  Net weight 3.8kg
  Dimension (W/H/D) 420.5/121.5/225mm
  (w/knobs & feet)

Specifications and design are subject to change without notice.

FRONT/REAR VIEW

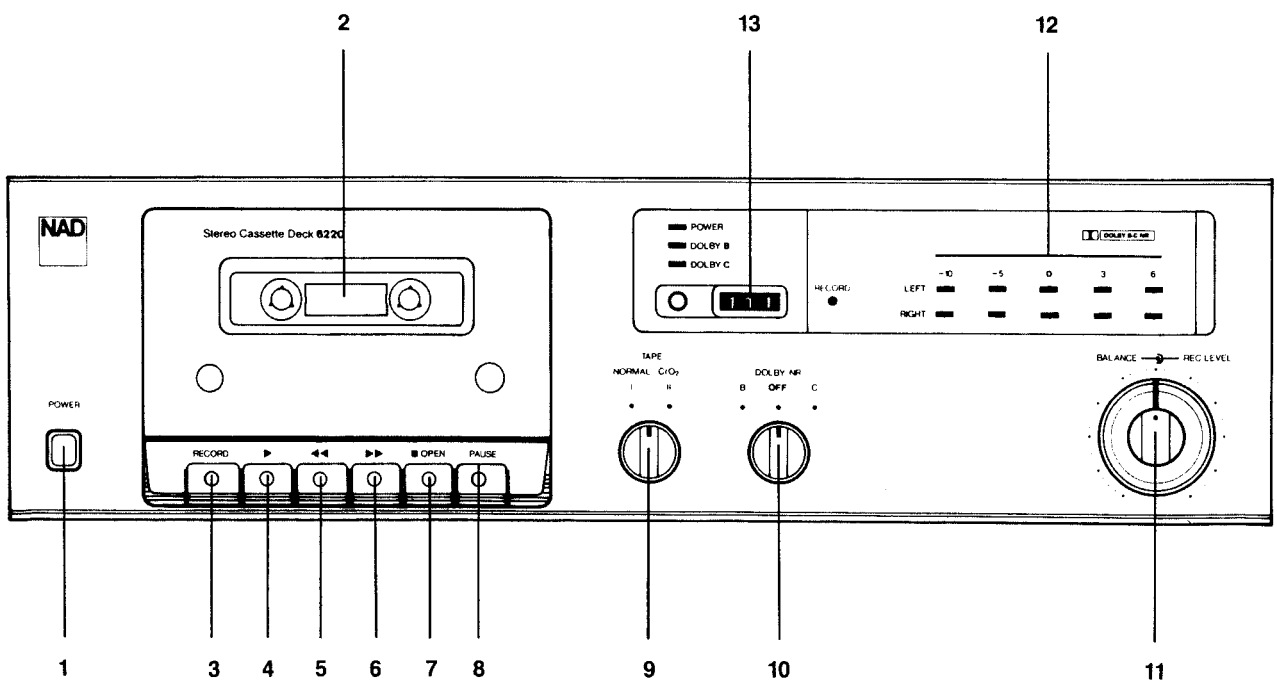
REAR PANEL

1. Input.
2. Output.
3. MPX Filter.
4. AC Power Cord.



FRONT PANEL

1. Power.
2. Cassette Compartment.
3. Record.
4. Play.
5. Rewind.
6. Fast Forward.
7. Stop/Open.
8. Pause.
9. Tape Selector.
10. Dolby NR On/Off.
11. Recording Level.
12. Recording Level Display.
13. Tape Counter.



ALIGNMENT METHOD

IMPORTANT

The tape path (heads, tape guides, capstan, pinch roller) should be cleaned and degaussed before alignment.

This tape recorder is designed to work well with a variety of tapes, however, maximum performance will be obtained with recommended tapes or similar.

Recommended tapes.	for North America	for Europe -DIN
Type I / Normal	Maxell UDS-I	Maxell UD-I, BASF TP18 No R723 DG
Type II / CrO_2	Maxell UDS-II	Maxell UD-II, BASF TP18 No S4592A

All adjustments done with Dolby NR Off and MPX filter (on back panel) Off.

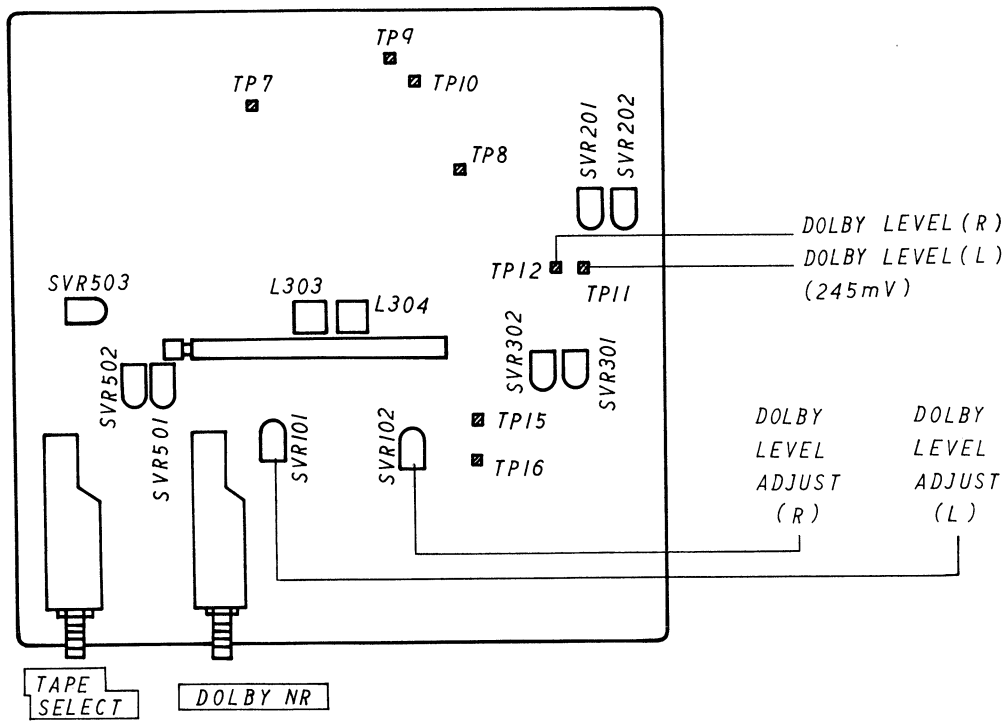
Dolby NR Level (200 nWb/m) = 245 mV on test points TP 11/12; approximately 530 mV at output.

STEP	TAPE TYPE / INPUT	MODE / SEL. POS.	CONNECTION / OUTPUT MONITOR	ADJUST	ADJUST FOR	TOLERANCE / NOTE
SPEED						
1	MTT-111 MTT-211	Play Normal	Line out Counter/W+F	Hole in motor rear	3000Hz 3150Hz	±1%
AZIMUTH						
2	MTT-255C	Play Normal	Line out VTVM/Scope	Azimuth screw	Maximum and in phase	Seal screw afterwards. Use lock paint, not glue.
PLAYBACK LEVEL						
3	MTT-150	Play Normal	TP 11/12 (L/R) VTVM/Scope	SVR 101 (L) SVR 102 (R)	245mV	DOLBY Level
LEVEL METERS AND OUTPUT LEVEL						
4	MTT-150	Play Normal	Line out VTVM/Scope	SVR 201 (L) SVR 202 (R)	0 dB LED just lights up	Note: output level should be near 530mV
BIAS TRAP						
5	Type I (blank tape)	Record/pause CrO_2	TP 15/16 (L/R) VTVM/Scope	L 303 (L) L 304 (R)	Minimum	Less than 15 mV RMS No audio input.
RECORD LEVEL						
6	A Type I Line in 400Hz	Record Normal	Line out VTVM/Scope	Generator output	−20 dB from level noted in step 4	Record levels fully clockwise. Output level near 50mV.
	B Rewind and play back	Play Normal	Line out VTVM/Scope	SVR 301 (L) SVR 302 (R)	Same as 6 A	±0.5 dB
	C REPEAT UNTIL SAME RECORD AND PLAY BACK LEVEL					
BIAS ADJUST NORMAL						
7	A Type I Line in 400 Hz and 12 kHz	Record Normal	Line out VTVM/Scope	Generator output	Same as 6 A	
	B Rewind and Play back	Play Normal	Line out VTVM/Scope	SVR 501 (L) SVR 502 (R)	Same as 6 A	±0.5 dB
	C REPEAT UNTIL SAME RECORD AND PLAY BACK LEVEL					
BIAS ADJUST CrO_2						
8	A Type II Line in 400 Hz and 12 kHz	Record CrO_2	Line out VTVM/Scope	Same as 6 A	Same as 6 A	
	B Rewind and Play back	Play CrO_2	Line out VTVM/Scope	SVR 503	Same as 6 A	±0.5 dB
	C REPEAT UNTIL SAME RECORD AND PLAY BACK LEVEL					

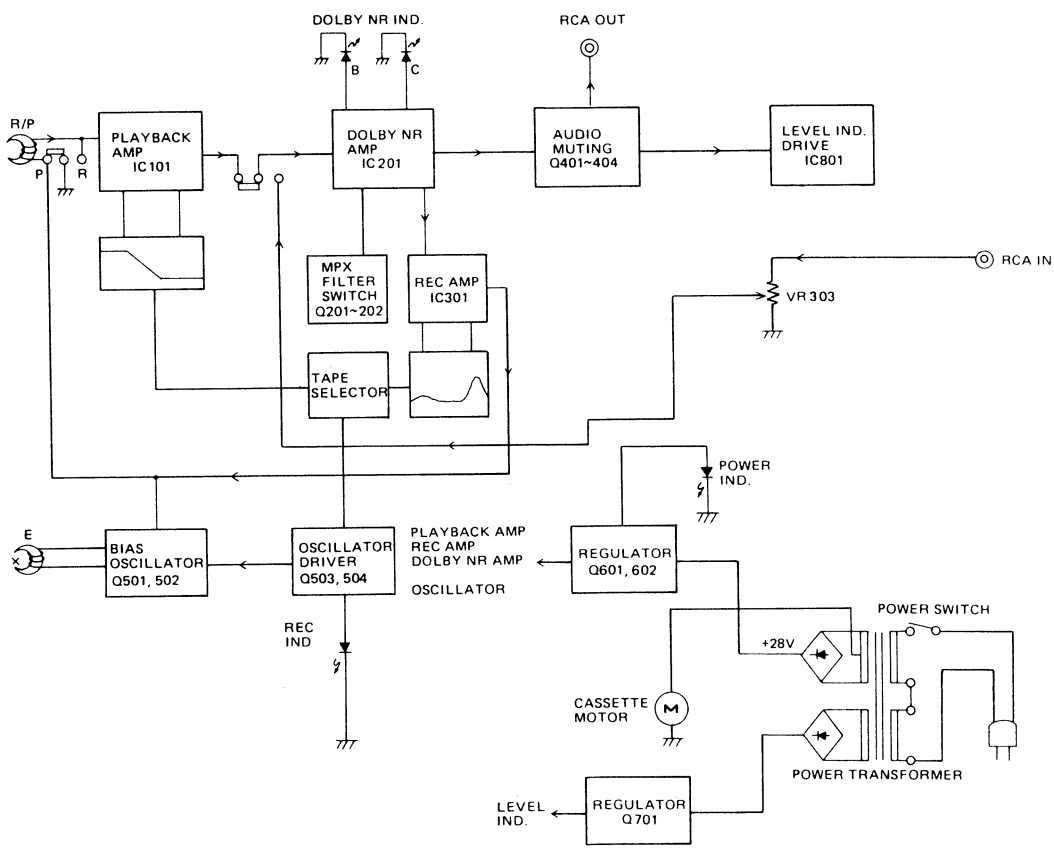
NOTE: VTVM = AC millivoltmeter
Scope = Oscilloscope
Counter = Frequency counter
W+F = Wow and Flutter meter

ALIGNMENT COMPONENT LAYOUT

Main PC Board

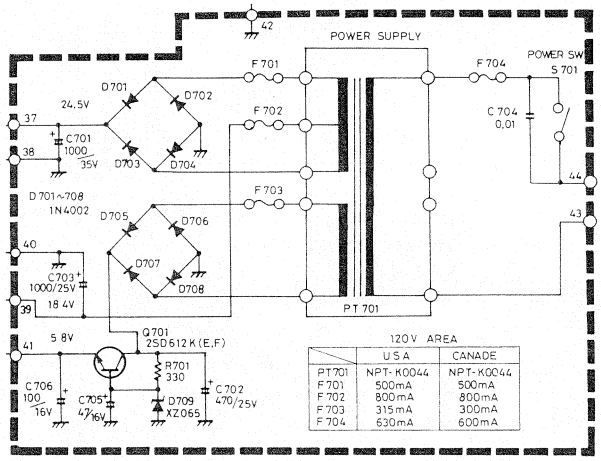


BLOCK DIAGRAM

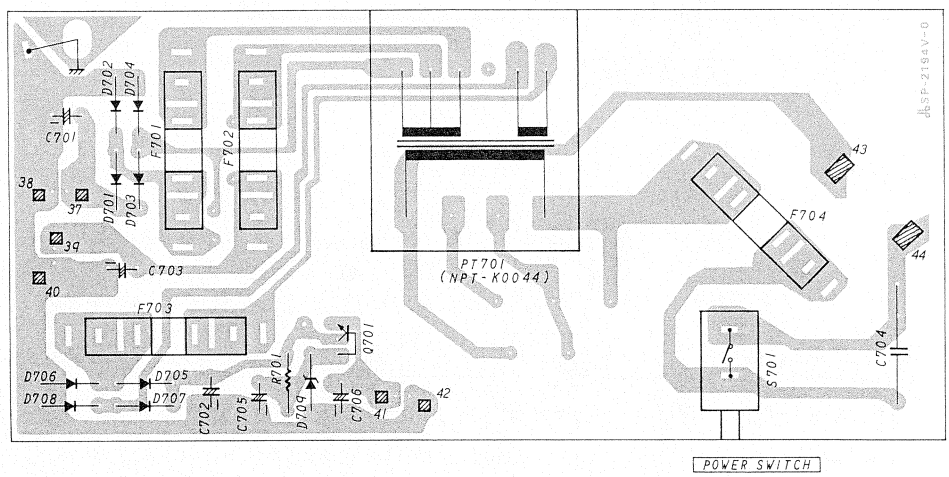


SCHEMATIC AND PCB LAYOUT (Foil side)

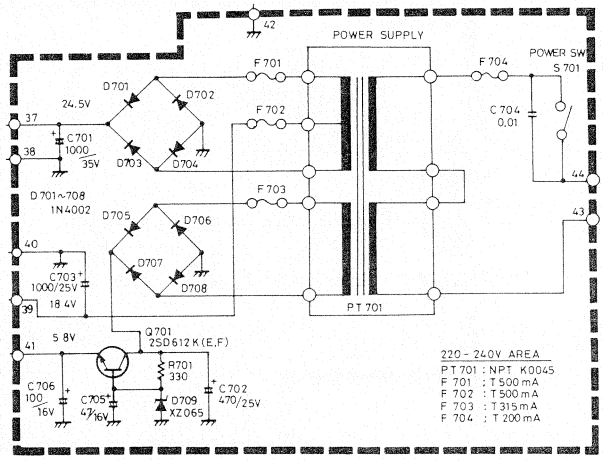
Power Supply Circuit (PS-K008)



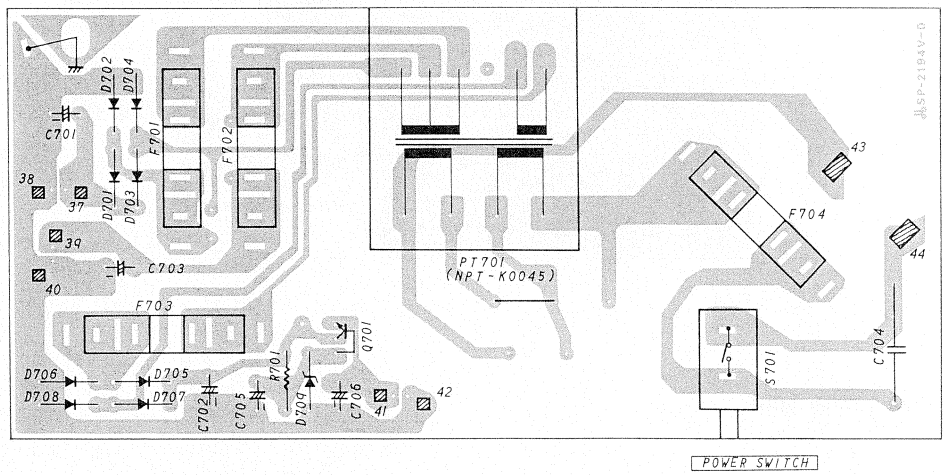
120V AREA
for CANADA, USA.



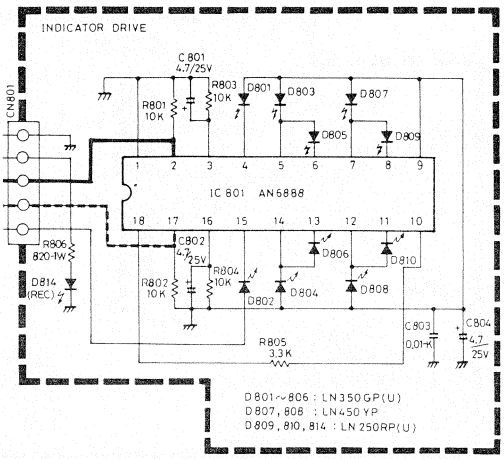
Power Supply Circuit (PS-K008)

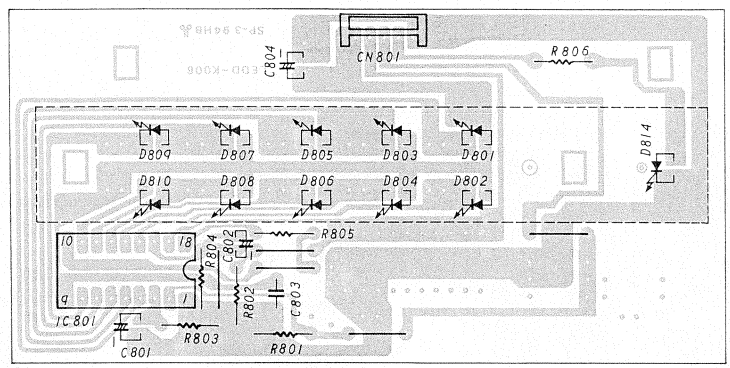


220 ~ 240V AREA
for EUROPE, AUSTRALIA.

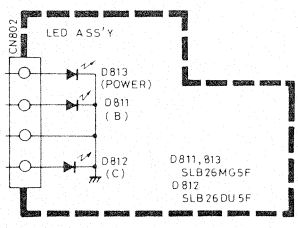


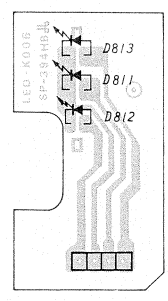
Indicator Drive Circuit (LEDD-K006)



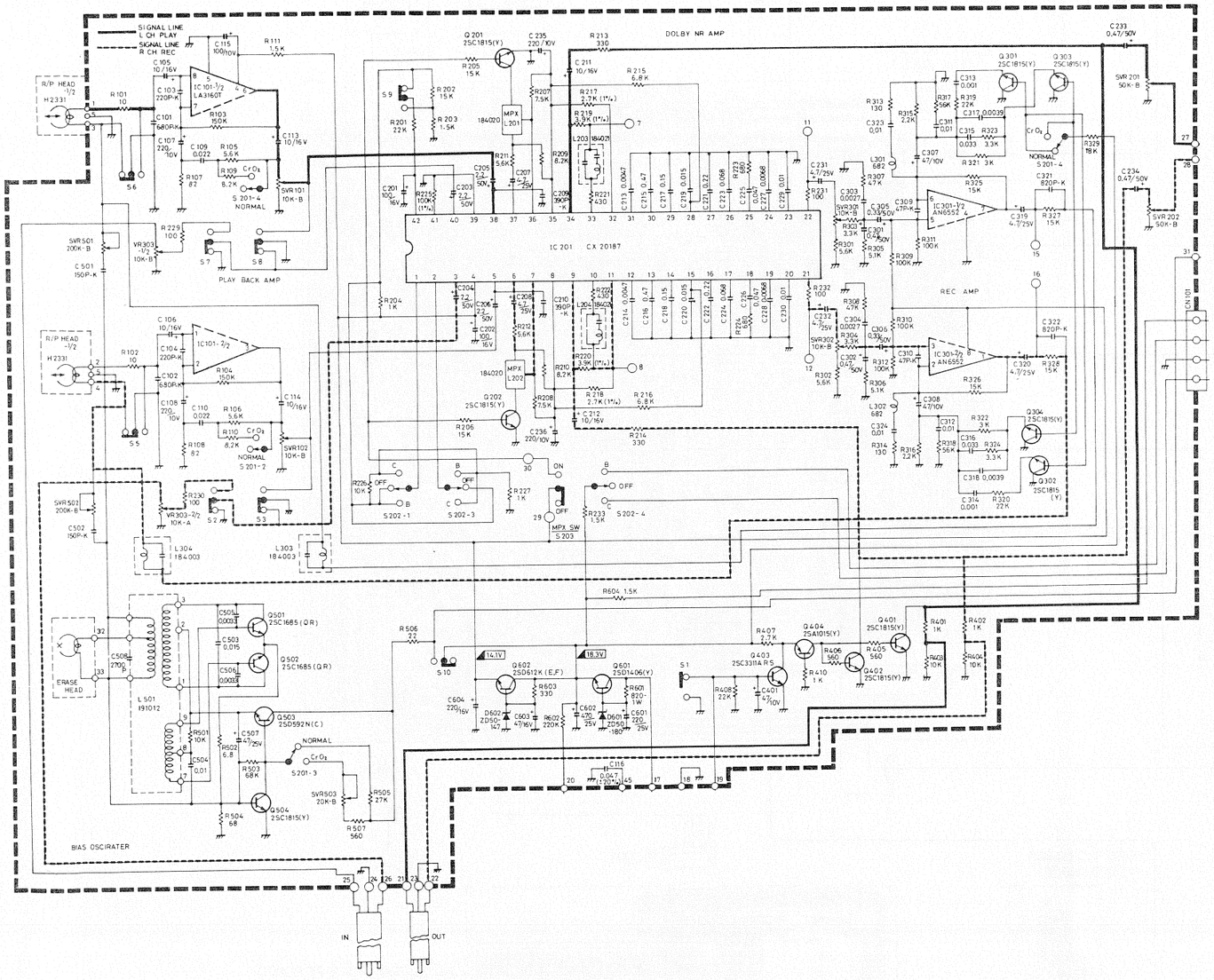


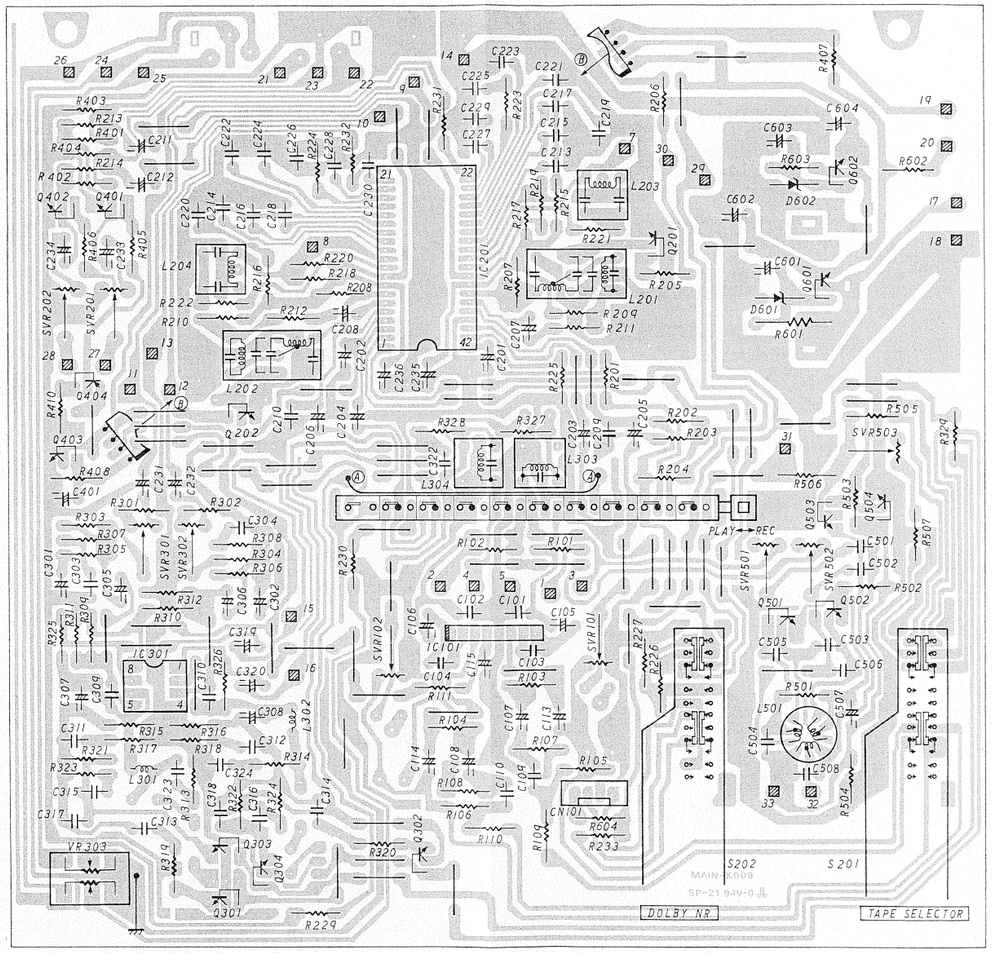
Indicator Circuit (LED-K006)



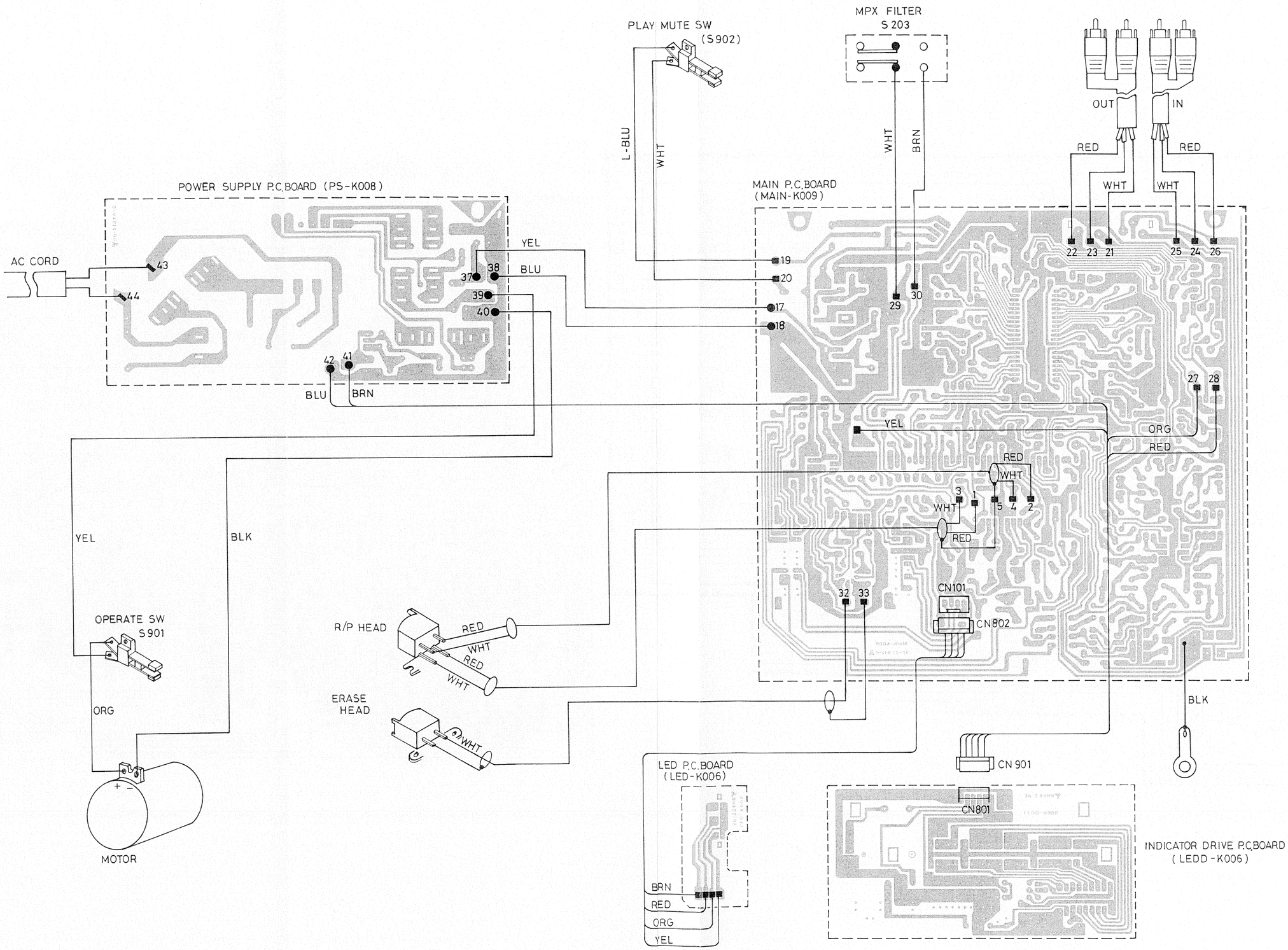


Main Circuit (MAIN-K009)

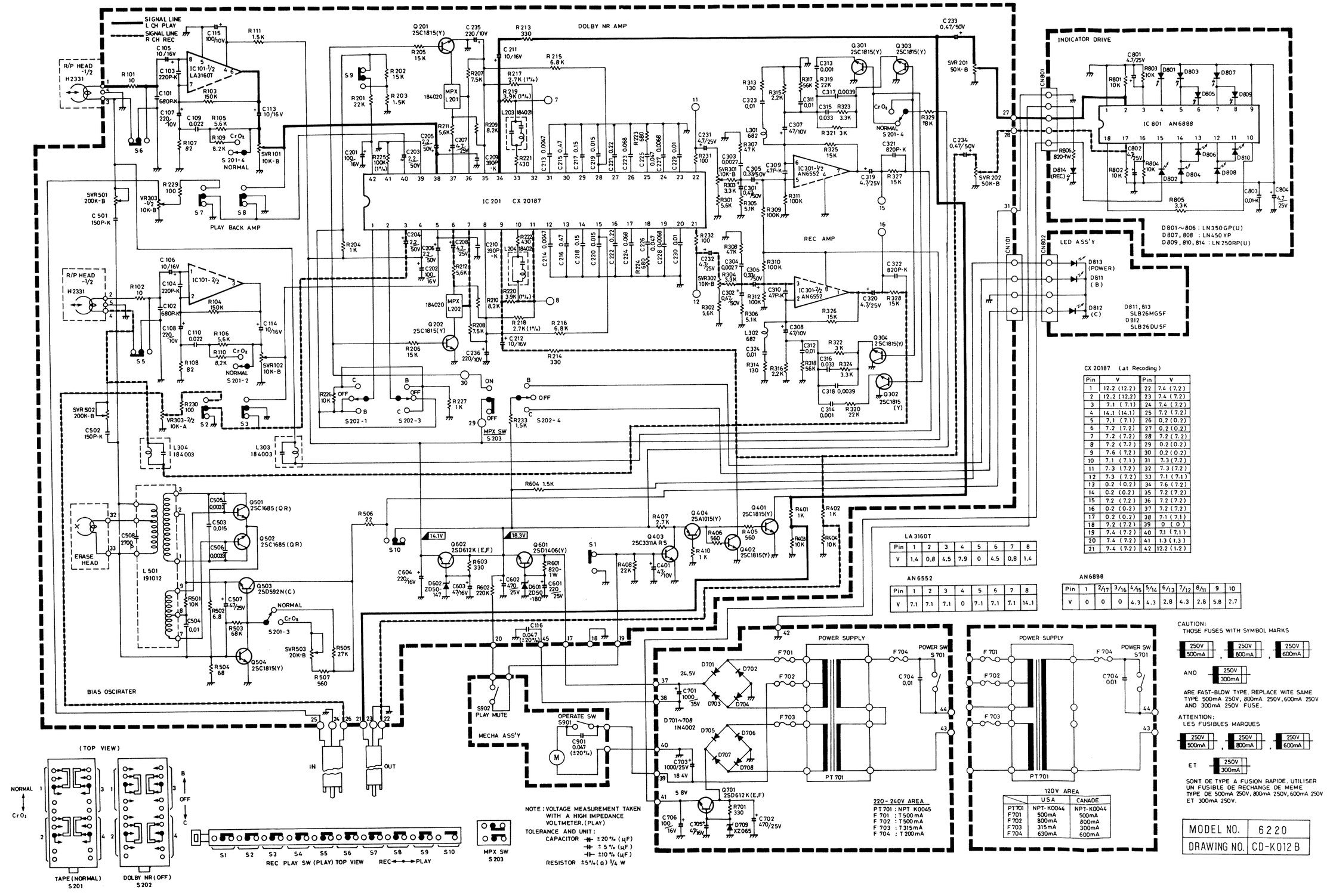




WIRING DIAGRAM (Component side)



SCHEMATIC DIAGRAM



CX 20187 (at Recoding)

Pin	V	Pin	V
1	12.2 (12.2)	22	7.4 (7.2)
2	12.2 (12.2)	23	7.4 (7.2)
3	7.1 (7.1)	24	7.4 (7.2)
4	14.1 (14.1)	25	7.2 (7.2)
5	7.1 (7.1)	26	0.2 (0.2)
6	7.2 (7.2)	27	0.2 (0.2)
7	7.2 (7.2)	28	7.2 (7.2)
8	7.2 (7.2)	29	0.2 (0.2)
9	7.6 (7.2)	30	0.2 (0.2)
10	7.1 (7.1)	31	7.3 (7.2)
11	7.3 (7.2)	32	7.3 (7.2)
12	7.3 (7.2)	33	7.1 (7.1)
13	0.2 (0.2)	34	7.6 (7.2)
14	0.2 (0.2)	35	7.2 (7.2)
15	7.2 (7.2)	36	7.2 (7.2)
16	0.2 (0.2)	37	7.2 (7.2)
17	0.2 (0.2)	38	7.1 (7.1)
18	7.2 (7.2)	39	0 (0)
19	7.4 (7.2)	40	7.1 (7.1)
20	7.4 (7.2)	41	1.3 (1.3)
21	7.4 (7.2)	42	12.2 (1.2)

LA 3160T

Pin	1	2	3	4	5	6	7	8
V	1.4	0.8	4.5	7.9	0	4.5	0.8	1.4

AN 6552

Pin	1	2	3	4	5	6	7	8
V	7.1	7.1	7.1	0	7.1	7.1	7.1	14.1

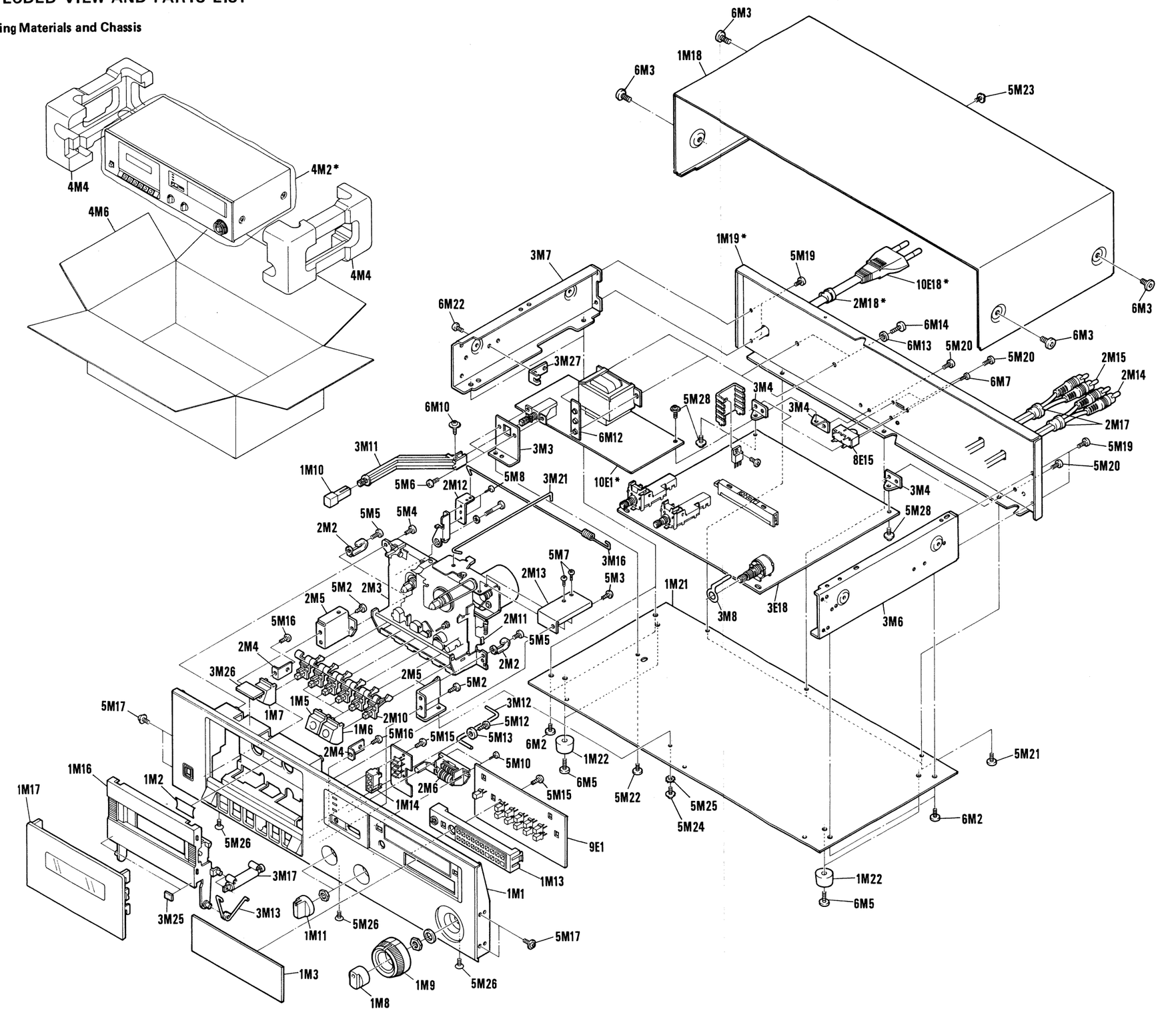
AN6888

Pin	1	2/17	3/16	4/15	5/14	6/13	7/12	8/11	9	10
V	0	0	0	4.3	4.3	2.8	4.3	2.8	5.8	2.7

MODEL NO.	6220
DRAWING NO.	CD-K012B

EXPLODED VIEW AND PARTS LIST

Packing Materials and Chassis

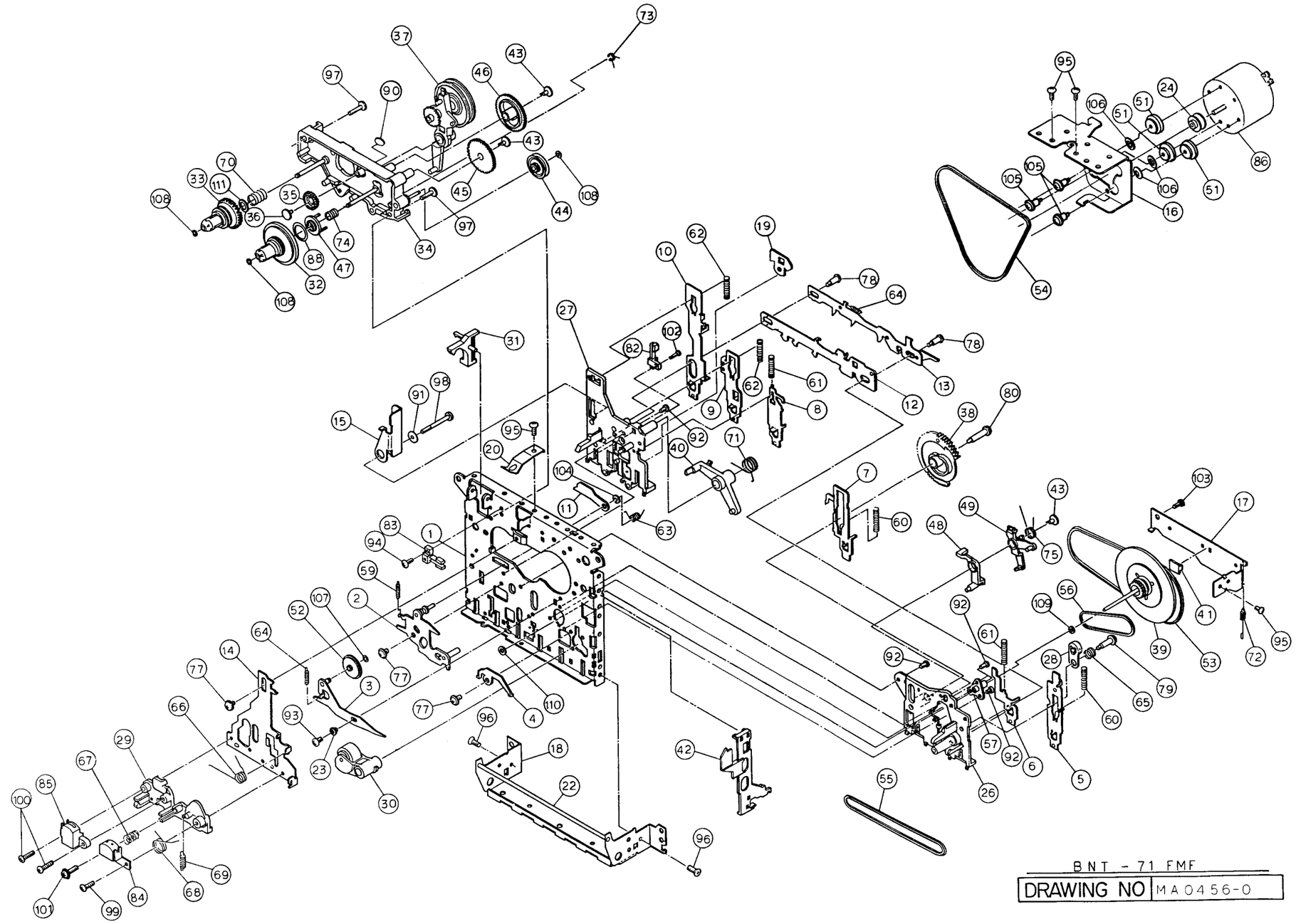


Ref. No.	Part No.	Description
1M1	BK1003	Front Panel
1M2	SN-241186-1	Cassette Mirror
1M3	BK4053	Front Glass
1M5	BK4040-BK	Cassette Button (Black)
1M6	BK4040-GY	Cassette Button (Gray)
1M7	BK4040-R	Cassette Button (Red)
1M8	62-2318-0-0	Knob (Potentiometer)
1M9	62-2319-0-0	Knob (Potentiometer)
1M10	N44642-GRN	Push Button (Green)
1M11	62-2317-0-0	Control Knob
1M13	BK3012	Led Holder A
1M14	BK4054	Led Holder B
1M16	N21024A-BK	Cassette Case
1M17	BK2006-1	Cassette Glass
1M18	BK2011	Cabinet
1M19*		Rear Panel
1M21	BK2013A	Bottom Board
1M22	NO. 7104	Foot
2M2	VJR-3	Snake Lug
2M3	BNT-71FMF	Cassette Mecha
2M4	BK4067	Cassette Case Holder
2M5	BK4044	Mecha Holder
2M6	SG10-10581-839	Counter
2M10	N30742B	Cassette Button Base
2M11	BK4055	Eject Lever
2M12	BK4061	Rec Holder
2M13	BK4058	Mecha Holder A
2M14	PC-037A	RCA Pin Coad Ass'y
2M15	PC-038A	RCA Pin Coad Ass'y
2M17	SR-3P-4	Cord Stopper
2M18*		Cord Stopper
3M2	SH-1230	Heat Sink
3M3	BK4056	Fittings (Switch)
3M4	N42635	Fittings (P.C.B.)
3M6	N30627B	Side Chassis R
3M7	N30651A	Side Chassis L
3M8	N41622A	Lug (Tuning)
3M11	N42470B	SW Shaft
3M12	BK4063	Damper Pin
3M13	BK4062	Eject Spring
3M16	BK4064	Rec Spring
3M17	K-105-1	Air-Damper
3M18	N42557	Washer
3M21	BK4065	Rear Spring
3M24	N40848G	Shaft Tape
3M25	BK4088	Cushion A
3M26	BK4089	Cushion B
3M27	N42842	Shaft Guide
4M1	N40487	Polyethylene Bag (Accessories)
4M2*		Polyethylene Bag (Unit)
4M4	BK2014	Packing Pad
4M6	BK4059	Shipping Carton
4M9	OM-K006	Instruction Manual
4M10	SL. 1024	Label, Serial No.
5M2, 3	TPM+30X08-B	Tap Screw P, Round Head, B
5M4	TPS+30X08-B	Tap Screw P, Flat Head, B
5M5, 6	SSP+30X06-Y	Screw, Pan Head, Y
5M7	TSB+26X06-Y	Tap Screw S, Bind Head, Y
5M8	TSB+20X05-Y	Tap Screw S, Bind Head, Y
5M10	TBB+26X08-Y	Tap Screw B, Bind Head, Y
5M12	TPM+30X08-B	Tap Screw P, Round Head, B
5M13	2AWX1230-08-Y	Plain Washer, Y
5M15	TPM+30X08-B	Tap Screw P, Round Head, B
5M16	TPM+30X06-Y	Tap Screw P, Round Head, Y
5M17	TSC+30X08-Y	Tap Screw S, Washer Faced, Y
5M19, 20	TSB+30X06-B	Tap Screw S, Bind Head, B
5M21~24	TSC+30X06-B	Tap Screw S, Washer Faced, B
5M25	2TWX30	Toothed Washer (B)
5M26	TSS+30X08-B	Tap Screw S, Flat Head, B
5M28	TSC+30X08-Y	Tap Screw S, Washer Faced, Y
6M2, 3	TCB+40X08-B	Tap Screw C, Bind Head, B
6M5	TSP+40X10-Y	Tap Screw S, Pan Head, Y
6M7	SSP+26X04-B	Screw, Pan Head, B
6M10	ZC+10X30X08-2N	Tap Screw, Washer Faced, N
6M12	N42722	Fittings (P.T.)
6M13	2AWX1040-08-B	Plain Washer, B
6M14	TSB+40X10-B	Tap Screw S, Bind Head, B
6M20, 21	TSB+30X08-Y	Tap Screw S, Bind Head, Y

Classify Parts by Destinations

Ref. No.	1M19*	2M18*	4M2*
Description	Rear Panel	Cord Stopper	Polyethylene Bag (Unit)
AUSTRALIA	BK2012-2	SR-3P-4	N41318
CANADA	BK2012-3	SR-4N-4	N41318
N.Z.	BK2012-2	SR-3P-4	N41318
SCANDINAVIA	BK2012	SR-3P-4	N41318
U.K.	BK2012-1	SR-5N-4	N44660
U.S.A.	BK2012-3	SR-4N-4	N41318
W. GERMANY	BK2012	SR-3P-4	N41318

Casstte Mechanism



Ref. No.	Parts No.	Description	Note
1	MA1141	Chassis	
2	MD1242	Shift Arm Assy	
3	MD1173	Idler Arm (HT) Assy	
4	MD1004	Pause Arm	
5	MD1165	Pause Lever (B) Assy	
6	MD1233	Stop Lever	
7	MD1234	FF Lever (B)	
8	MD1235	Rew Lever (B)	
9	MD1236	Play Lever (B)	
10	MD1238	Rec Lever (C)	
11	MDS1108	Rec Lever (BH)	
12	MC1140	Lock Cam (A)	
13	MD1045	Lock Cam (B) Assy	
14	MC1287	Head Chassis	
15	MD1292	Rec Arm	
16	MDS1096	Motor Bracket	
17	MD1018	Flywheel Bracket	
18	MC1131	Button Holder (B)	
19	MD1061	Inter Lock Arm	
20	MDS1097	Pack Spring	
21			
22	MD2037	Button Shaft	
23	MD2033	Collar	
24	MD2038	Motor Pulley	
25			
26	MB3116	Lever Holder (A)	
27	MB3125	Lever Holder (B)	
28	MC3014	Pause Cam	
29	MC3019	Head Base	
30	MD3072	P Roller Arm Assy	
31	MC3021	Rec Sensor	
32	MD3153	T Reel Assy	
33	MD3154	S Reel Assy	
34	MC3156	Reel Base Assy (B)	
35	MD3015	FF Gear	
36	KD3052	Bush	
37	MD3068	Clutch Arm Assy	
38	MC3083	Gear (C)	
39	MD3171	Flywheel Assy (S)	
40	MC3086	Lock Arm (H)	
41	MD3087	Capston Spacer	
42		Eject Lever	BK4055
43	MD3047	Bush	
44	MD3066	Auto Pulley	
45	MD3065	Auto Gear	
46	MD3044	Auto Cam Gear	
47	MD3130	Auto Clutch	
48	MD3043	Auto Arm (B)	
49	MD3042	Auto Lock Arm	
50			
51	MD4002	Motor Cushion	
52	MD4001	Play Idler	
53	MD4017	Drive Belt	
54	KD4005	Belt	
55	MD4030	Counter Belt	
56	MD4003	Auto Belt	
57	MD5002	Housing Assy	
58			
59	MD6055	Shift Arm Spring (C)	
60	MD6038	FF Lever Spring	
61	MD6005	Rew Lever Spring	
62	MD6003	Lever Spring	
63	MD6019	Rec Lever Spring (B)	
64	MD6006	Cam Spring	
65	MD6007	Pause Cam Spring	
66	MD6010	Head Chassis Spring	
67	KD6009	Head Spring	
68	MD6060	P Roller Spring	
69	MD6001	Head Chassis Return Spring	
70	MD6102	Back Tension Spring	
71	MD6050	Lock Arm Spring	
72	MD6040	Eject Lever Spring	
73	MD6052	Auto Sensor Spring	
74	MD6088	Auto Clutch Spring	
75	MD6017	Auto Lock Arm Spring	
76			
77	MD8002	Screw (A)	
78	MD8003	Screw (B)	
79	MD8004	Screw (C)	
80	MD8005	Screw (D)	
81			
82	94019051	Leaf Switch	LSA-1119G
83	94019010	Leaf Switch	LSA-1120YN
84	92999054	RP Head	H2331-0122
85	92999130	E Head	H4322-0303
86	91999001	Motor	MMI6A2LK
87			
88	8356709511	Auto Clutch Felt	MD8009
89			
90	8342356001	Lumiler Washer	5.6 x 0.188t
91	8233029754	Plain Washer (L)	2.6ø
92	8213112004	Tap Tite Screw	2 x 4
93	8213112005	Tap Tite Screw	2 x 5
94	8213112006	Tap Tite Screw	2 x 6
95	8213112604	Tap Tite Screw	2.6 x 4
96	8211312605	Flat Tap Tite Screw	2.6 x 5
97	8213512608	Bind Tap Tite Screw	2.6 x 8
98	8213112622	Tap Tite Screw	2.6 x 22
99	8215512008	Binding Screw	2 x 8
100	8215512095	Binding Screw	2 x 9.5
101	8215812009	Washer Head Screw	2 x 9
102	8214112605	Tapping Screw	2.6 x 5
103	8214152606	Tapping Screw	2.6 x 6
104	8220002004	E Ring	2ø
105	SD8511	Motor Screw	
106	MD1270	Washer (B)	
107	8342112002	Polyslider Washer	1.2ø x 3.5ø x 0.25t
108	8342117009	Polyslider Washer	1.7ø x 3.5ø x 0.25t
109	8342121030	Polyslider Washer	2.1ø x 5.0ø x 0.25t
110	8340419002	Oil Stop Washer	1.9ø x 5.0ø x 0.5t
111	8346240007	Reel Washer	MD8038

Electrical Parts List

Ref. No.	Part No.	Description
P C BOARDS		
	LED-K006	Printed Circuit Board
	LEDD-K006	Printed Circuit Board
	MAIN-K009	Printed Circuit Board
	PS-K008	Printed Circuit Board
SEMICONDUCTORS		
D601	ZD50-180	Zener Diode, 1/2W, 18.0V
D602	ZD50-147	Zener Diode, 1/2W, 14.7V
D701~708	1N4002	Diode
D709	ZD50-064	Zener Diode, 1/2W, 6.4V
D801~806	LN350GP-U	LED
D807, 808	LN450YP	LED
D809, 810	LN250RP-U	LED
D811	SLB26MG5F	LED
D812	SLB26DU5F	LED
D813	SLB26MG5F	LED
D814	LN250RP-U	LED
Q201, 202	2SC1815-Y	Transistor
Q301, 302	2SC1815-Y	Transistor
Q303, 304		
Q401, 402	2SC1815-Y	Transistor
Q403	2SC3311A-R, S	Transistor
Q404	2SA1015-Y	Transistor
Q501, 502	2SC1685-Q, R	Transistor
Q503	2SD592NC-Q, R	Transistor
Q504	2SC1815-Y	Transistor
Q601	2SD1406-Y	Transistor
Q602	2SD612K-E, F	Transistor
Q701	2SD612K-E, F	Transistor
IC101	LA3160T	IC
IC201	CX20187	IC
IC301	AN6552F	IC
IC801	AN6888	IC
CAPACITORS		

Capacitors description

- Electrolytic Capacitor

NS | -16 | TW | 221 | M

Tolerance (%);
Value (μF);
Voltage (V);

M = ±20
R22 = 0.22, 100 = 10, 1R0 = 1.0, 221 = 220, 3R3 = 3.3,
102 = 1000, –16 = 16, 6R3 = 6.3

- Mylar Capacitor

MY | -50V | S | 223 | M

Tolerance (%);
Value (pF);
Voltage (V);

J = 5, K = 10, M = 20
122 = 1200, 104 = 100000 = 0.1 (μF), 223 = 22000
–50 = 50

- Ceramic Capacitor

HE | 90 | SJ | YF | 223 | Z

Tolerance (%);
Value (pF);
Voltage (V);

D = ±0.5pF, J = ±5 (%), K = ±10 (%), Z = $^{+80}_{-20}$ (%)
050 = 5, 102 = 1000, 560 = 56, 223 = 22000, 821 = 820
HC = 25, HE = 50, HK = 250, HM = 500, H = 100

C101, 102	CK45B1H681K	Ceramic Capacitor
C103	HE40SJYB221K	Ceramic Capacitor
C104	HE40SJYB221K	Ceramic Capacitor
C105, 106	NS-16TW100M	Electrolytic Capacitor
C107, 108	NS-10TW221M	Electrolytic Capacitor
C109, 110	MY-50VS223J	Mylar Capacitor
C113, 114	NS-16TW100M	Electrolytic Capacitor
C115	NS-10TW101M	Electrolytic Capacitor
C116	HC10SJZF473Z	Ceramic Capacitor
C201, 202	NS-16TW101M	Electrolytic Capacitor
C203~206	LL-50TW2R2M	Low Leak. Electrolytic Cap
C207, 208	NS-25TW4R7M	Electrolytic Capacitor
C209, 210	CC45SL1H391K	Ceramic Capacitor
C211, 212	NS-16TW100M	Electrolytic Capacitor
C213, 214	MY-50VS472J	Mylar Capacitor
C215, 216	ECQV1H474JZ	Metallized Film Capacitor
C217, 218	ECQV1H154JZ	Metallized Film Capacitor
C219, 220	MY-50VS153J	Mylar Capacitor
C221, 222	ECQV1H224JZ	Metallized Film Capacitor
C223, 224	MY-50VS683J	Mylar Capacitor
C225, 226	MY-50VS473J	Mylar Capacitor
C227, 228	MY-50VS682J	Mylar Capacitor
C229, 230	MY-50VS103J	Mylar Capacitor
C231, 232	NS-25TW4R7M	Electrolytic Capacitor
C233, 234	NS-50TWR47M	Electrolytic Capacitor
C235, 236	NS-10TW221M	Electrolytic Capacitor
C301, 302	NS-50TWR47M	Electrolytic Capacitor
C303, 304	MY-50VS272J	Mylar Capacitor
C305, 306	NS-50TWR33M	Electrolytic Capacitor
C307, 308	NS-10TW470M	Electrolytic Capacitor
C309, 310	CC45SL1H470K	Ceramic Capacitor
C311, 312	MY-50VS103J	Mylar Capacitor
C313, 314	MY-50VS102J	Mylar Capacitor
C315, 316	MY-50VS333J	Mylar Capacitor
C317, 318	MY-50VS392J	Mylar Capacitor
C319, 320	NS-25TW4R7M	Electrolytic Capacitor
C321, 322	CK45B1H821K	Ceramic Capacitor
C323, 324	MY-50VS103J	Mylar Capacitor
C401	NS-10TW470M	Electrolytic Capacitor
C501, 502	CC45SL1H151K	Ceramic Capacitor
C503	MY-50VS153J	Mylar Capacitor
C504	MY-50VS103J	Mylar Capacitor
C505, 506	MY-50VS332J	Mylar Capacitor
C507	NS-25TW470M	Electrolytic Capacitor
C508	APSV100V272J	Polyester Film Capacitor
C601	NS-25TW221M	Electrolytic Capacitor
C602	NS-25TW471M	Electrolytic Capacitor
C603	NS-16TW470M	Electrolytic Capacitor
C604	NS-16TW221M	Electrolytic Capacitor
C701	NS-35TW102M	Electrolytic Capacitor
C702	NS-25TW471M	Electrolytic Capacitor
C703	NS-25TW102M	Electrolytic Capacitor
⚠C704	ECQU2A103MF	Metallized Film Capacitor U.K., W. GERMANY, AUSTRALIA, NZ, SCANDINAVIA Version
⚠C704	ECQU1A103MH	Metallized Film Capacitor USA, CANADA Version
C705	NS-16TW470M	Electrolytic Capacitor
C706	NS-16TW101M	Electrolytic Capacitor
C801, 802	S5-25TW4R7M	Electrolytic Capacitor
C803	HE10SJYD103M	Ceramic Capacitor
C804	S5-25TW4R7M	Electrolytic Capacitor
C901	HC10SJZF473Z	Ceramic Capacitor
RESISTORS		

Resistors description

- Fixed Resistors

KA | 25S | T | 473 | J | -LP

Tolerance (%);
Value (Ω);
Wattage (W);
Type;

D = ±0.5, F = ±1, G = ±2, J = ±5
2R2 = 2.2, 682 = 6.8k, 125 = 1.2M, 470 = 47, 473 = 47k,
221 = 220, 394 = 390k
25S = 1/4, 50S or 50X = 1/2, –2W = 2
KA = Carbon, FR = Flame Proof, SA = Metal Oxide,
RF = Fusible, MF = Metal Film

Ref. No.	Part No.	Description
R101, 102	KA25ST100J	Carbon Resistor
R103, 104	KA25ST154J	Carbon Resistor
R105, 106	KA25ST562J	Carbon Resistor
R107, 108	KA25ST820J	Carbon Resistor
R109, 110	KA25ST822J	Carbon Resistor
R111	KA25ST152J	Carbon Resistor
R201	KA25ST223J	Carbon Resistor
R202	KA25ST153J	Carbon Resistor
R203	KA25ST152J	Carbon Resistor
R204	KA25ST102J	Carbon Resistor
R205, 206	KA25ST153J	Carbon Resistor
R207, 208	KA25ST752J	Carbon Resistor
R209, 210	KA25ST822J	Carbon Resistor
R211, 212	KA25ST562J	Carbon Resistor
R213, 214	KA25ST331J	Carbon Resistor
R215, 216	KA25ST682J	Carbon Resistor
R217, 218	MF25ST272F	Metal Film Resistor
R219, 220	MF25ST392F	Metal Film Resistor
R221, 222	KA25ST431J	Carbon Resistor
R223, 224	KA25ST681J	Carbon Resistor
R225	MF25ST104F	Metal Film Resistor
R226	KA25ST103J	Carbon Resistor
R227	KA25ST102J	Carbon Resistor
R229~232	KA25ST101J	Carbon Resistor
R233	KA25ST152J	Carbon Resistor
R301, 302	KA25ST562J	Carbon Resistor
R303, 304	KA25ST332J	Carbon Resistor
R305, 306	KA25ST512J	Carbon Resistor
R307, 308	KA25ST473J	Carbon Resistor
R309~312	KA25ST104J	Carbon Resistor
R313, 314	KA25ST131J	Carbon Resistor
R315, 316	KA25ST222J	Carbon Resistor
R317, 318	KA25ST563J	Carbon Resistor
R319, 320	KA25ST223J	Carbon Resistor
R321, 322	KA25ST302J	Carbon Resistor
R323, 324	KA25ST332J	Carbon Resistor
R325~328	KA25ST153J	Carbon Resistor
R329	KA25ST183J	Carbon Resistor
R401, 402	KA25ST102J	Carbon Resistor
R403, 404	KA25ST103J	Carbon Resistor
R405, 406	KA25ST561J	Carbon Resistor
R407	KA25ST272J	Carbon Resistor
R408	KA25ST223J	Carbon Resistor
R410	KA25ST102J	Carbon Resistor
R501	KA25ST103J	Carbon Resistor
R502	KA25ST6R8J	Carbon Resistor
R503	KA25ST683J	Carbon Resistor
R504	KA25ST6R8J	Carbon Resistor
R505	KA25ST273J	Carbon Resistor
R506	KA25ST220J	Carbon Resistor
R507	KA25ST561J	Carbon Resistor
R601	SA-1WT821J	Metal Oxide Resistor
R602	KA25ST224J	Carbon Resistor
R603	KA25ST331J	Carbon Resistor
R604	KA25ST152J	Carbon Resistor
R701	KA25ST331J	Carbon Resistor
R801~804	KA25ST103J	Carbon Resistor
R805	KA25ST332J	Carbon Resistor
R806	KA50XT821J	Carbon Resistor
VR303	EWJ-S1AW19A14	Rotary Potentiometer
SVR201,202	SVR-08T3B503	Semi-variable Resistor
SVR301,302	SVR-08T3B103	Semi-variable Resistor
SVR501,502	SVR-08T3B204	Semi-variable Resistor
SVR503	SVR-08T3B203	Semi-variable Resistor
SVR101,102	SVR-08T3B103	Semi-variable Resistor
COILS		
⚠PT701	NPT-K0045	Power Transformer U.K., AUSTRALIA, NZ, SCANDINAVIA, W. GERMANY Version
⚠PT701	NPT-K0044	Power Transformer USA, CANADA Version
L201, 202	184020	Filter Block
L203, 204	184021	Filter Block
L301, 302	RC875-682J	Inductor
L303, 304	184003	Filter Block
L501	191012	OSC Coil
SWITCHES		
S010	ESD802262	Slide Switch
S201	ESR-M142K15A	Rotary Slide Switch
S202	ESR-M143K15C	Rotary Slide Switch
S203	SW-5222173	Slide Switch
⚠S701	ESB8215V	Power Switch
MISCELLANEOUS		
⚠10E18	ACC-005D3-4EC1	Line Cord W. GERMANY, SCANDINAVIA Version
⚠10E18	ACC-030D3-4EC1	Line Cord AUSTRALIA, NZ Version
⚠10E18	ACC-033D4-4EC1	Line Cord USA, CANADA Version
⚠10E18	ACC-013D3-4EC4	Line Cord U.K. Version
	IPS-1041-4	Jump Wire
	RP-001	Terminal Pin
	2316502-BB-C	Fuse Holder U.K., AUSTRALIA, USA, NZ, SCANDINAVIA, W. GERMANY Version
	S-N5051	Fuse Holder CANADA Version
	5E-T05	Jump Wire
	59BS1692	GND Lug
	59BS4795	GND Lug
CN101	P125C-04M	Micro Plug
CN801	P125D-05M	Micro Plug
⚠FU701, 702	FU-525017T	Fuse, 5φ, 250V, 500mA U.K., AUSTRALIA, NZ, SCANDINAVIA, W. GERMANY Version
⚠FU703	FU-523117T	Fuse, 5φ, 250V, 315mA U.K., AUSTRALIA, NZ, SCANDINAVIA, W. GERMANY Version
⚠FU704	FU-522017T	Fuse, 5φ, 250V, 200mA U.K., AUSTRALIA, NZ, SCANDINAVIA, W. GERMANY Version
⚠FU701	FU-625014ST	Fuse, 6φ, 250V, 500mA CANADA Version
⚠FU702	FU-628014T	Fuse, 6φ, 250V, 800mA CANADA Version
⚠FU703	FU-623014T	Fuse, 6φ, 250V, 300mA CANADA Version
⚠FU704	FU-626014T	Fuse, 6φ, 250V, 600mA CANADA Version
⚠FU701	FU-525014ST	Fuse, 5φ, 250V, 500mA USA Version
⚠FU702	FU-528014T	Fuse, 5φ, 250V, 800mA USA Version
⚠FU703	FU-523114T	Fuse, 5φ, 350V, 315mA USA Version
⚠FU704	FU-526314T	Fuse, 5φ, 250V, 630mA USA Version
CN802	MT-125C4F-K005	Micro Socket
CN902	MT-125C5F-K006	Micro Socket